## REMARKS

In the Office Action, claims 1 and 2 are rejected under 35 U.S.C. §103 in view of U.S. Patent No. 6,414,262 (Rao) and U.S. Patent No. 6,428,218 (Mussig). Claims 1 and 2 have been canceled without prejudice or disclaimer as previously indicated, and thus, the obviousness rejection in view of same should be rendered moot.

Further, Applicants believe that newly added claims 4 and 5 should be considered patentable over the cited art of record. Of these claims, claim 4 is the sole independent claim. Claim 4 recites a method for fusion splicing of an optical fiber using an optical fiber fusion splicer. The method includes measuring, from image signals obtained by said image pickup means when a preliminary arc discharge is generated between said discharge electrodes when no optical fibers have been placed in a discharge area, brightness distributions on a plurality of lines that are set at different positions along a rectilinear direction between said discharge electrodes and run in a direction substantially at right angles to the rectilinear direction; estimating a heating center of the arc discharge from the plurality of brightness distributions; controlling said setting means such that the abutment portion of said two optical fibers is positioned in the heating center; and thereafter controlling said heating means such that a main arc discharge is generated and said abutment portion is heated by said discharge beam, wherein the optical fiber fusion splicer includes a setting means for setting respective end surfaces of two optical fibers that are to be spliced in order to abut against each other, a heating means for generating an arc discharge between two discharge electrodes and heating an abutment portion of said optical fibers using a discharge beam, and an image pickup means for picking up an image of said discharge beam.

In contrast, Rao provides that the position of the heating center is determined by the following steps: 1) placing the abutment portion (fiber ends 18, 19) of the optical fibers on a heating position; and 2) radiating a low power laser beam to the abutment portion from a laser diode (15) and monitoring the laser beam which has been traversed the abutment portion using a photo-detector (16) which is positioned opposed to the laser diode across the abutment portion. See, Rao, column 3 at lines 34-40. Moreover, Rao suggests that the estimation of the heating center is unnecessary since the laser beam is very highly confined to the abutment portion of the optical fibers compared with the arc discharge. Therefore, Rao on its own is clearly

distinguishable from the claimed invention for at least these reasons.

Further, Applicants do not believe that Mussig can be relied on solely to remedy the deficiencies of Rao. In Mussig, the preliminary arc discharge has to be performed when the optical fibers (1, 3) are provided on the heating position, since the preliminary arc discharge is performed in order to determine a discharge current in which the smallest loss of the abutment portion during the splicing of the optical fibers can be achieved. See, Mussig, column 3 at lines 53 to 60. Therefore, Applicants do not believe that one skilled in the art would be inclined to modify the cited art, even if combinable, to cover the claimed invention based on at least the differences between the claimed invention and the cited art as discussed above.

Accordingly, Applicants respectfully submit that claims 4 and 5 should be considered patentable over the cited art of record, and thus, the present application should pass to allowance in view of same.

Respectfully submitted,

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